Release notes for ENDF/B Development n-058_Ce_136 evaluation

ENDF B-VII.dev

April 26, 2017

- `checkr` Warnings:

    1. A previous error halted parsing of the current section
       MAT=5825, MF= 1, MT=451 (1): Parsing stopped

        ```
        ERROR(S) FOUND IN MAT=5825, MF= 1, MT=451
            SECTION CANNOT BE CHECKED FROM SEQUENCE NUMBER     236 TO     368
        ```

- `checkr` Errors:

    1. A variable is outside the allowed ENDF range
       MAT=5825, MF= 1, MT=451 (0): Variable range

        ```
        ERROR(S) FOUND IN MAT=5825, MF= 1, MT=451
            MOD =    1 OUT OF RANGE    0 -    0          RECORD NUMBER    236
        ```

    2. Missing a section in directory so your directory is messed up. This error will break everything else
       MAT=5825, MF= 2, MT=151 (0): Directory (b)

        ```
        ERROR(S) FOUND IN MAT=5825, MF= 2, MT=151
            SECTION  2/151 NOT IN DIRECTORY              RECORD NUMBER    370
        ```

    3. Missing a section in directory so your directory is messed up. This error will break everything else
       MAT=5825, MF= 3, MT= 1 (0): Directory (b)

        ```
        ERROR(S) FOUND IN MAT=5825, MF= 3, MT=  1
            SECTION  3/  1 NOT IN DIRECTORY              RECORD NUMBER    587
        ```

    4. Missing a section in directory so your directory is messed up. This error will break everything else
       MAT=5825, MF= 3, MT= 2 (0): Directory (b)

        ```
        ERROR(S) FOUND IN MAT=5825, MF= 3, MT=  2
            SECTION  3/  2 NOT IN DIRECTORY              RECORD NUMBER    601
        ```

    5. Missing a section in directory so your directory is messed up. This error will break everything else
       MAT=5825, MF= 3, MT= 4 (0): Directory (b)

        ```
        ERROR(S) FOUND IN MAT=5825, MF= 3, MT=  4
            SECTION  3/  4 NOT IN DIRECTORY              RECORD NUMBER    625
        ```

    6. Missing a section in directory so your directory is messed up. This error will break everything else
       MAT=5825, MF= 3, MT= 16 (0): Directory (b)

        ```
        ERROR(S) FOUND IN MAT=5825, MF= 3, MT= 16
            SECTION  3/ 16 NOT IN DIRECTORY              RECORD NUMBER    642
        ```

    7. Missing a section in directory so your directory is messed up. This error will break everything else
       MAT=5825, MF= 3, MT= 17 (0): Directory (b)

1

```
      ERROR(S) FOUND IN MAT=5825, MF= 3, MT= 17
          SECTION  3/ 17 NOT IN DIRECTORY                  RECORD NUMBER     650
```

8. Missing a section in directory so your directory is messed up. This error will break everything else
   $MAT{=}5825,\ MF{=}\ 3,\ MT{=}\ 22\ (0)\colon\ Directory\ (b)$

```
      ERROR(S) FOUND IN MAT=5825, MF= 3, MT= 22
          SECTION  3/ 22 NOT IN DIRECTORY                  RECORD NUMBER     655
```

9. Missing a section in directory so your directory is messed up. This error will break everything else
   $MAT{=}5825,\ MF{=}\ 3,\ MT{=}\ 24\ (0)\colon\ Directory\ (b)$

```
      ERROR(S) FOUND IN MAT=5825, MF= 3, MT= 24
          SECTION  3/ 24 NOT IN DIRECTORY                  RECORD NUMBER     665
```

10. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT{=}5825,\ MF{=}\ 3,\ MT{=}\ 28\ (0)\colon\ Directory\ (b)$

```
      ERROR(S) FOUND IN MAT=5825, MF= 3, MT= 28
          SECTION  3/ 28 NOT IN DIRECTORY                  RECORD NUMBER     671
```

11. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT{=}5825,\ MF{=}\ 3,\ MT{=}\ 41\ (0)\colon\ Directory\ (b)$

```
      ERROR(S) FOUND IN MAT=5825, MF= 3, MT= 41
          SECTION  3/ 41 NOT IN DIRECTORY                  RECORD NUMBER     680
```

12. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT{=}5825,\ MF{=}\ 3,\ MT{=}\ 51\ (0)\colon\ Directory\ (b)$

```
      ERROR(S) FOUND IN MAT=5825, MF= 3, MT= 51
          SECTION  3/ 51 NOT IN DIRECTORY                  RECORD NUMBER     686
```

13. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT{=}5825,\ MF{=}\ 3,\ MT{=}\ 52\ (0)\colon\ Directory\ (b)$

```
      ERROR(S) FOUND IN MAT=5825, MF= 3, MT= 52
          SECTION  3/ 52 NOT IN DIRECTORY                  RECORD NUMBER     700
```

14. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT{=}5825,\ MF{=}\ 3,\ MT{=}\ 53\ (0)\colon\ Directory\ (b)$

```
      ERROR(S) FOUND IN MAT=5825, MF= 3, MT= 53
          SECTION  3/ 53 NOT IN DIRECTORY                  RECORD NUMBER     713
```

15. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT{=}5825,\ MF{=}\ 3,\ MT{=}\ 54\ (0)\colon\ Directory\ (b)$

```
        ERROR(S) FOUND IN MAT=5825, MF= 3, MT= 54
           SECTION  3/ 54 NOT IN DIRECTORY                    RECORD NUMBER     726
```

16. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 3, MT= 55 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF= 3, MT= 55
           SECTION  3/ 55 NOT IN DIRECTORY                    RECORD NUMBER     739
```

17. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 3, MT= 56 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF= 3, MT= 56
           SECTION  3/ 56 NOT IN DIRECTORY                    RECORD NUMBER     750
```

18. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 3, MT= 91 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF= 3, MT= 91
           SECTION  3/ 91 NOT IN DIRECTORY                    RECORD NUMBER     762
```

19. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 3, MT=102 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF= 3, MT=102
           SECTION  3/102 NOT IN DIRECTORY                    RECORD NUMBER     777
```

20. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 3, MT=103 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF= 3, MT=103
           SECTION  3/103 NOT IN DIRECTORY                    RECORD NUMBER     792
```

21. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 3, MT=107 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF= 3, MT=107
           SECTION  3/107 NOT IN DIRECTORY                    RECORD NUMBER     806
```

22. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 3, MT=600 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF= 3, MT=600
           SECTION  3/600 NOT IN DIRECTORY                    RECORD NUMBER     825
```

23. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 3, MT=601 (0): Directory (b)

3

```
ERROR(S) FOUND IN MAT=5825, MF= 3, MT=601
    SECTION  3/601 NOT IN DIRECTORY                RECORD NUMBER      839
```

24. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=5825, MF= 3, MT=602$ (0): Directory (b)

```
ERROR(S) FOUND IN MAT=5825, MF= 3, MT=602
    SECTION  3/602 NOT IN DIRECTORY                RECORD NUMBER      853
```

25. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=5825, MF= 3, MT=603$ (0): Directory (b)

```
ERROR(S) FOUND IN MAT=5825, MF= 3, MT=603
    SECTION  3/603 NOT IN DIRECTORY                RECORD NUMBER      867
```

26. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=5825, MF= 3, MT=604$ (0): Directory (b)

```
ERROR(S) FOUND IN MAT=5825, MF= 3, MT=604
    SECTION  3/604 NOT IN DIRECTORY                RECORD NUMBER      881
```

27. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=5825, MF= 3, MT=605$ (0): Directory (b)

```
ERROR(S) FOUND IN MAT=5825, MF= 3, MT=605
    SECTION  3/605 NOT IN DIRECTORY                RECORD NUMBER      895
```

28. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=5825, MF= 3, MT=606$ (0): Directory (b)

```
ERROR(S) FOUND IN MAT=5825, MF= 3, MT=606
    SECTION  3/606 NOT IN DIRECTORY                RECORD NUMBER      909
```

29. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=5825, MF= 3, MT=607$ (0): Directory (b)

```
ERROR(S) FOUND IN MAT=5825, MF= 3, MT=607
    SECTION  3/607 NOT IN DIRECTORY                RECORD NUMBER      923
```

30. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=5825, MF= 3, MT=608$ (0): Directory (b)

```
ERROR(S) FOUND IN MAT=5825, MF= 3, MT=608
    SECTION  3/608 NOT IN DIRECTORY                RECORD NUMBER      937
```

31. Missing a section in directory so your directory is messed up. This error will break everything else
    $MAT=5825, MF= 3, MT=649$ (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5825, MF= 3, MT=649
         SECTION  3/649 NOT IN DIRECTORY                 RECORD NUMBER     951
```

32. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 3, MT=800 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5825, MF= 3, MT=800
         SECTION  3/800 NOT IN DIRECTORY                 RECORD NUMBER     965
```

33. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 3, MT=801 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5825, MF= 3, MT=801
         SECTION  3/801 NOT IN DIRECTORY                 RECORD NUMBER     984
```

34. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 3, MT=802 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5825, MF= 3, MT=802
         SECTION  3/802 NOT IN DIRECTORY                 RECORD NUMBER    1003
```

35. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 3, MT=803 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5825, MF= 3, MT=803
         SECTION  3/803 NOT IN DIRECTORY                 RECORD NUMBER    1021
```

36. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 3, MT=804 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5825, MF= 3, MT=804
         SECTION  3/804 NOT IN DIRECTORY                 RECORD NUMBER    1040
```

37. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 3, MT=805 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5825, MF= 3, MT=805
         SECTION  3/805 NOT IN DIRECTORY                 RECORD NUMBER    1059
```

38. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 3, MT=806 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5825, MF= 3, MT=806
         SECTION  3/806 NOT IN DIRECTORY                 RECORD NUMBER    1078
```

39. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 3, MT=807 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF= 3, MT=807
            SECTION  3/807 NOT IN DIRECTORY              RECORD NUMBER    1097
```

40. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 3, MT=808 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF= 3, MT=808
            SECTION  3/808 NOT IN DIRECTORY              RECORD NUMBER    1116
```

41. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 3, MT=809 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF= 3, MT=809
            SECTION  3/809 NOT IN DIRECTORY              RECORD NUMBER    1135
```

42. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 3, MT=810 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF= 3, MT=810
            SECTION  3/810 NOT IN DIRECTORY              RECORD NUMBER    1154
```

43. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 3, MT=811 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF= 3, MT=811
            SECTION  3/811 NOT IN DIRECTORY              RECORD NUMBER    1171
```

44. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 3, MT=849 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF= 3, MT=849
            SECTION  3/849 NOT IN DIRECTORY              RECORD NUMBER    1188
```

45. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 4, MT= 2 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF= 4, MT=  2
            SECTION  4/  2 NOT IN DIRECTORY              RECORD NUMBER    1208
```

46. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 4, MT= 51 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF= 4, MT= 51
            SECTION  4/ 51 NOT IN DIRECTORY              RECORD NUMBER    1335
```

47. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 4, MT= 52 (0): Directory (b)

6

```
    ERROR(S) FOUND IN MAT=5825, MF= 4, MT= 52
        SECTION  4/ 52 NOT IN DIRECTORY                  RECORD NUMBER    1431
```

48. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 4, MT= 53 (0): Directory (b)

```
    ERROR(S) FOUND IN MAT=5825, MF= 4, MT= 53
        SECTION  4/ 53 NOT IN DIRECTORY                  RECORD NUMBER    1518
```

49. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 4, MT= 54 (0): Directory (b)

```
    ERROR(S) FOUND IN MAT=5825, MF= 4, MT= 54
        SECTION  4/ 54 NOT IN DIRECTORY                  RECORD NUMBER    1599
```

50. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 4, MT= 55 (0): Directory (b)

```
    ERROR(S) FOUND IN MAT=5825, MF= 4, MT= 55
        SECTION  4/ 55 NOT IN DIRECTORY                  RECORD NUMBER    1689
```

51. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 4, MT= 56 (0): Directory (b)

```
    ERROR(S) FOUND IN MAT=5825, MF= 4, MT= 56
        SECTION  4/ 56 NOT IN DIRECTORY                  RECORD NUMBER    1775
```

52. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 4, MT=600 (0): Directory (b)

```
    ERROR(S) FOUND IN MAT=5825, MF= 4, MT=600
        SECTION  4/600 NOT IN DIRECTORY                  RECORD NUMBER    1839
```

53. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 4, MT=601 (0): Directory (b)

```
    ERROR(S) FOUND IN MAT=5825, MF= 4, MT=601
        SECTION  4/601 NOT IN DIRECTORY                  RECORD NUMBER    1904
```

54. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 4, MT=602 (0): Directory (b)

```
    ERROR(S) FOUND IN MAT=5825, MF= 4, MT=602
        SECTION  4/602 NOT IN DIRECTORY                  RECORD NUMBER    1969
```

55. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 4, MT=603 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF= 4, MT=603
          SECTION  4/603 NOT IN DIRECTORY                    RECORD NUMBER    2034
```

56. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 4, MT=604 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF= 4, MT=604
          SECTION  4/604 NOT IN DIRECTORY                    RECORD NUMBER    2099
```

57. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 4, MT=605 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF= 4, MT=605
          SECTION  4/605 NOT IN DIRECTORY                    RECORD NUMBER    2164
```

58. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 4, MT=606 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF= 4, MT=606
          SECTION  4/606 NOT IN DIRECTORY                    RECORD NUMBER    2229
```

59. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 4, MT=607 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF= 4, MT=607
          SECTION  4/607 NOT IN DIRECTORY                    RECORD NUMBER    2294
```

60. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 4, MT=608 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF= 4, MT=608
          SECTION  4/608 NOT IN DIRECTORY                    RECORD NUMBER    2359
```

61. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 4, MT=800 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF= 4, MT=800
          SECTION  4/800 NOT IN DIRECTORY                    RECORD NUMBER    2424
```

62. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 4, MT=801 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF= 4, MT=801
          SECTION  4/801 NOT IN DIRECTORY                    RECORD NUMBER    2517
```

63. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 4, MT=802 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF= 4, MT=802
           SECTION  4/802 NOT IN DIRECTORY                    RECORD NUMBER    2610
```

64. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 4, MT=803 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF= 4, MT=803
           SECTION  4/803 NOT IN DIRECTORY                    RECORD NUMBER    2703
```

65. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 4, MT=804 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF= 4, MT=804
           SECTION  4/804 NOT IN DIRECTORY                    RECORD NUMBER    2796
```

66. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 4, MT=805 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF= 4, MT=805
           SECTION  4/805 NOT IN DIRECTORY                    RECORD NUMBER    2889
```

67. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 4, MT=806 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF= 4, MT=806
           SECTION  4/806 NOT IN DIRECTORY                    RECORD NUMBER    2982
```

68. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 4, MT=807 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF= 4, MT=807
           SECTION  4/807 NOT IN DIRECTORY                    RECORD NUMBER    3075
```

69. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 4, MT=808 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF= 4, MT=808
           SECTION  4/808 NOT IN DIRECTORY                    RECORD NUMBER    3168
```

70. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 4, MT=809 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF= 4, MT=809
           SECTION  4/809 NOT IN DIRECTORY                    RECORD NUMBER    3261
```

71. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 4, MT=810 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5825, MF= 4, MT=810
         SECTION  4/810 NOT IN DIRECTORY                  RECORD NUMBER    3354
```

72. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 4, MT=811 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5825, MF= 4, MT=811
         SECTION  4/811 NOT IN DIRECTORY                  RECORD NUMBER    3447
```

73. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 6, MT= 16 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5825, MF= 6, MT= 16
         SECTION  6/ 16 NOT IN DIRECTORY                  RECORD NUMBER    3541
```

74. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 6, MT= 17 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5825, MF= 6, MT= 17
         SECTION  6/ 17 NOT IN DIRECTORY                  RECORD NUMBER    4235
```

75. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 6, MT= 22 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5825, MF= 6, MT= 22
         SECTION  6/ 22 NOT IN DIRECTORY                  RECORD NUMBER    4304
```

76. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 6, MT= 24 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5825, MF= 6, MT= 24
         SECTION  6/ 24 NOT IN DIRECTORY                  RECORD NUMBER    6685
```

77. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 6, MT= 28 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5825, MF= 6, MT= 28
         SECTION  6/ 28 NOT IN DIRECTORY                  RECORD NUMBER    6899
```

78. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 6, MT= 41 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5825, MF= 6, MT= 41
         SECTION  6/ 41 NOT IN DIRECTORY                  RECORD NUMBER    8356
```

79. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 6, MT= 91 (0): Directory (b)

10

```
       ERROR(S) FOUND IN MAT=5825, MF= 6, MT= 91
          SECTION  6/ 91 NOT IN DIRECTORY                 RECORD NUMBER    8453
```

80. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 6, MT=102 (0): Directory (b)

```
       ERROR(S) FOUND IN MAT=5825, MF= 6, MT=102
          SECTION  6/102 NOT IN DIRECTORY                 RECORD NUMBER   16815
```

81. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 6, MT=649 (0): Directory (b)

```
       ERROR(S) FOUND IN MAT=5825, MF= 6, MT=649
          SECTION  6/649 NOT IN DIRECTORY                 RECORD NUMBER   18243
```

82. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF= 6, MT=849 (0): Directory (b)

```
       ERROR(S) FOUND IN MAT=5825, MF= 6, MT=849
          SECTION  6/849 NOT IN DIRECTORY                 RECORD NUMBER   19758
```

83. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF=12, MT= 51 (0): Directory (b)

```
       ERROR(S) FOUND IN MAT=5825, MF=12, MT= 51
          SECTION 12/ 51 NOT IN DIRECTORY                 RECORD NUMBER   21643
```

84. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF=12, MT= 52 (0): Directory (b)

```
       ERROR(S) FOUND IN MAT=5825, MF=12, MT= 52
          SECTION 12/ 52 NOT IN DIRECTORY                 RECORD NUMBER   21647
```

85. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF=12, MT= 53 (0): Directory (b)

```
       ERROR(S) FOUND IN MAT=5825, MF=12, MT= 53
          SECTION 12/ 53 NOT IN DIRECTORY                 RECORD NUMBER   21651
```

86. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF=12, MT= 54 (0): Directory (b)

```
       ERROR(S) FOUND IN MAT=5825, MF=12, MT= 54
          SECTION 12/ 54 NOT IN DIRECTORY                 RECORD NUMBER   21655
```

87. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF=12, MT= 55 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=5825, MF=12, MT= 55
    SECTION 12/ 55 NOT IN DIRECTORY                  RECORD NUMBER   21659
```

88. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF=12, MT= 56 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=5825, MF=12, MT= 56
    SECTION 12/ 56 NOT IN DIRECTORY                  RECORD NUMBER   21663
```

89. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF=12, MT=601 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=5825, MF=12, MT=601
    SECTION 12/601 NOT IN DIRECTORY                  RECORD NUMBER   21667
```

90. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF=12, MT=602 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=5825, MF=12, MT=602
    SECTION 12/602 NOT IN DIRECTORY                  RECORD NUMBER   21671
```

91. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF=12, MT=603 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=5825, MF=12, MT=603
    SECTION 12/603 NOT IN DIRECTORY                  RECORD NUMBER   21675
```

92. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF=12, MT=604 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=5825, MF=12, MT=604
    SECTION 12/604 NOT IN DIRECTORY                  RECORD NUMBER   21679
```

93. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF=12, MT=605 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=5825, MF=12, MT=605
    SECTION 12/605 NOT IN DIRECTORY                  RECORD NUMBER   21683
```

94. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF=12, MT=606 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=5825, MF=12, MT=606
    SECTION 12/606 NOT IN DIRECTORY                  RECORD NUMBER   21687
```

95. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF=12, MT=607 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF=12, MT=607
          SECTION 12/607 NOT IN DIRECTORY                    RECORD NUMBER    21691
```

96. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF=12, MT=608 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF=12, MT=608
          SECTION 12/608 NOT IN DIRECTORY                    RECORD NUMBER    21695
```

97. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF=12, MT=801 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF=12, MT=801
          SECTION 12/801 NOT IN DIRECTORY                    RECORD NUMBER    21699
```

98. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF=12, MT=802 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF=12, MT=802
          SECTION 12/802 NOT IN DIRECTORY                    RECORD NUMBER    21703
```

99. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF=12, MT=803 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF=12, MT=803
          SECTION 12/803 NOT IN DIRECTORY                    RECORD NUMBER    21707
```

100. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF=12, MT=804 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF=12, MT=804
          SECTION 12/804 NOT IN DIRECTORY                    RECORD NUMBER    21711
```

101. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF=12, MT=805 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF=12, MT=805
          SECTION 12/805 NOT IN DIRECTORY                    RECORD NUMBER    21715
```

102. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF=12, MT=806 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF=12, MT=806
          SECTION 12/806 NOT IN DIRECTORY                    RECORD NUMBER    21719
```

103. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5825, MF=12, MT=807 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF=12, MT=807
            SECTION 12/807 NOT IN DIRECTORY                    RECORD NUMBER   21723
```

104. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=5825, MF=12, MT=808 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF=12, MT=808
            SECTION 12/808 NOT IN DIRECTORY                    RECORD NUMBER   21728
```

105. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=5825, MF=12, MT=809 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF=12, MT=809
            SECTION 12/809 NOT IN DIRECTORY                    RECORD NUMBER   21733
```

106. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=5825, MF=12, MT=810 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF=12, MT=810
            SECTION 12/810 NOT IN DIRECTORY                    RECORD NUMBER   21737
```

107. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=5825, MF=12, MT=811 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF=12, MT=811
            SECTION 12/811 NOT IN DIRECTORY                    RECORD NUMBER   21742
```

108. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=5825, MF=14, MT= 51 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF=14, MT= 51
            SECTION 14/ 51 NOT IN DIRECTORY                    RECORD NUMBER   21747
```

109. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=5825, MF=14, MT= 52 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF=14, MT= 52
            SECTION 14/ 52 NOT IN DIRECTORY                    RECORD NUMBER   21749
```

110. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=5825, MF=14, MT= 53 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF=14, MT= 53
            SECTION 14/ 53 NOT IN DIRECTORY                    RECORD NUMBER   21751
```

111. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=5825, MF=14, MT= 54 (0): Directory (b)

14

```
        ERROR(S) FOUND IN MAT=5825, MF=14, MT= 54
           SECTION 14/ 54 NOT IN DIRECTORY                    RECORD NUMBER    21753
```

112. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=5825, MF=14, MT= 55 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF=14, MT= 55
           SECTION 14/ 55 NOT IN DIRECTORY                    RECORD NUMBER    21755
```

113. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=5825, MF=14, MT= 56 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF=14, MT= 56
           SECTION 14/ 56 NOT IN DIRECTORY                    RECORD NUMBER    21757
```

114. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=5825, MF=14, MT=601 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF=14, MT=601
           SECTION 14/601 NOT IN DIRECTORY                    RECORD NUMBER    21759
```

115. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=5825, MF=14, MT=602 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF=14, MT=602
           SECTION 14/602 NOT IN DIRECTORY                    RECORD NUMBER    21761
```

116. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=5825, MF=14, MT=603 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF=14, MT=603
           SECTION 14/603 NOT IN DIRECTORY                    RECORD NUMBER    21763
```

117. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=5825, MF=14, MT=604 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF=14, MT=604
           SECTION 14/604 NOT IN DIRECTORY                    RECORD NUMBER    21765
```

118. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=5825, MF=14, MT=605 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF=14, MT=605
           SECTION 14/605 NOT IN DIRECTORY                    RECORD NUMBER    21767
```

119. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=5825, MF=14, MT=606 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF=14, MT=606
            SECTION 14/606 NOT IN DIRECTORY                RECORD NUMBER   21769
```

120. Missing a section in directory so your directory is messed up. This error will break everything else
   MAT=5825, MF=14, MT=607 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF=14, MT=607
            SECTION 14/607 NOT IN DIRECTORY                RECORD NUMBER   21771
```

121. Missing a section in directory so your directory is messed up. This error will break everything else
   MAT=5825, MF=14, MT=608 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF=14, MT=608
            SECTION 14/608 NOT IN DIRECTORY                RECORD NUMBER   21773
```

122. Missing a section in directory so your directory is messed up. This error will break everything else
   MAT=5825, MF=14, MT=801 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF=14, MT=801
            SECTION 14/801 NOT IN DIRECTORY                RECORD NUMBER   21775
```

123. Missing a section in directory so your directory is messed up. This error will break everything else
   MAT=5825, MF=14, MT=802 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF=14, MT=802
            SECTION 14/802 NOT IN DIRECTORY                RECORD NUMBER   21777
```

124. Missing a section in directory so your directory is messed up. This error will break everything else
   MAT=5825, MF=14, MT=803 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF=14, MT=803
            SECTION 14/803 NOT IN DIRECTORY                RECORD NUMBER   21779
```

125. Missing a section in directory so your directory is messed up. This error will break everything else
   MAT=5825, MF=14, MT=804 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF=14, MT=804
            SECTION 14/804 NOT IN DIRECTORY                RECORD NUMBER   21781
```

126. Missing a section in directory so your directory is messed up. This error will break everything else
   MAT=5825, MF=14, MT=805 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5825, MF=14, MT=805
            SECTION 14/805 NOT IN DIRECTORY                RECORD NUMBER   21783
```

127. Missing a section in directory so your directory is messed up. This error will break everything else
   MAT=5825, MF=14, MT=806 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5825, MF=14, MT=806
         SECTION 14/806 NOT IN DIRECTORY              RECORD NUMBER   21785
```

128. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=5825, MF=14, MT=807 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5825, MF=14, MT=807
         SECTION 14/807 NOT IN DIRECTORY              RECORD NUMBER   21787
```

129. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=5825, MF=14, MT=808 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5825, MF=14, MT=808
         SECTION 14/808 NOT IN DIRECTORY              RECORD NUMBER   21789
```

130. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=5825, MF=14, MT=809 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5825, MF=14, MT=809
         SECTION 14/809 NOT IN DIRECTORY              RECORD NUMBER   21791
```

131. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=5825, MF=14, MT=810 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5825, MF=14, MT=810
         SECTION 14/810 NOT IN DIRECTORY              RECORD NUMBER   21793
```

132. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=5825, MF=14, MT=811 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5825, MF=14, MT=811
         SECTION 14/811 NOT IN DIRECTORY              RECORD NUMBER   21795
```

- psyche   Warnings:

  1. Strength function in URR not in agreement with PSYCHE's expectations
  FILE 2 / SECTION 151 / ISOTOPE MASS = 136. L = 0 / STRENGTH FUNCTION IS 2.52789E-04 / STRENGTH FUNCTION 2.52789E-04 / LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04 (0): URR str. ftn.

```
  FILE  2
     SECTION 151
         ISOTOPE MASS = 136. L =  0
                  STRENGTH FUNCTION IS  2.52789E-04
                              STRENGTH FUNCTION 2.52789E-04
  ... [1 more lines]
```

  2. Strength function in URR not in agreement with PSYCHE's expectations
  FILE 2 / SECTION 151 / ENERGY = 8.80000E+02. STRENGTH FUNCTION IS 1.20000E-04 / STRENGTH FUNCTION 1.20000E-04 / LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04 (0): URR str. ftn.

17

```
FILE  2
   SECTION 151
       ENERGY =  8.80000E+02. STRENGTH FUNCTION IS  1.20000E-04
                          STRENGTH FUNCTION 1.20000E-04
                                      LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
... [36 more lines]
```

3. Level density in URR not in agreement with PSYCHE's expectations
   FILE 2 / SECTION 151 / ENERGY = 8.80000E+02. STRENGTH FUNCTION IS 1.20000E-04 / ENERGY = 8.80000E+02. STRENGTH FUNCTION IS 1.20000E-04 / DENSITY 5.50370E+01 SHOULD BE 4.86941E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
       ENERGY =  8.80000E+02. STRENGTH FUNCTION IS  1.20000E-04
                     ENERGY =  8.80000E+02. STRENGTH FUNCTION IS  1.20000E-04
                              DENSITY  5.50370E+01 SHOULD BE  4.86941E+01
```

4. Level density in URR not in agreement with PSYCHE's expectations
   FILE 2 / SECTION 151 / ENERGY = 1.00000E+03. STRENGTH FUNCTION IS 1.20000E-04 / DENSITY 5.50285E+01 SHOULD BE 4.86865E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
           ENERGY =  1.00000E+03. STRENGTH FUNCTION IS  1.20000E-04
                         DENSITY  5.50285E+01 SHOULD BE  4.86865E+01
```

5. Level density in URR not in agreement with PSYCHE's expectations
   FILE 2 / SECTION 151 / ENERGY = 1.50000E+03. STRENGTH FUNCTION IS 1.20000E-04 / DENSITY 5.49925E+01 SHOULD BE 4.86547E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
           ENERGY =  1.50000E+03. STRENGTH FUNCTION IS  1.20000E-04
                         DENSITY  5.49925E+01 SHOULD BE  4.86547E+01
```

6. Level density in URR not in agreement with PSYCHE's expectations
   FILE 2 / SECTION 151 / ENERGY = 2.00000E+03. STRENGTH FUNCTION IS 1.20000E-04 / DENSITY 5.49566E+01 SHOULD BE 4.86230E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
           ENERGY =  2.00000E+03. STRENGTH FUNCTION IS  1.20000E-04
                         DENSITY  5.49566E+01 SHOULD BE  4.86230E+01
```

7. Level density in URR not in agreement with PSYCHE's expectations
   FILE 2 / SECTION 151 / ENERGY = 2.50000E+03. STRENGTH FUNCTION IS 1.20000E-04 / DENSITY 5.49209E+01 SHOULD BE 4.85913E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
           ENERGY =  2.50000E+03. STRENGTH FUNCTION IS  1.20000E-04
                         DENSITY  5.49209E+01 SHOULD BE  4.85913E+01
```

8. Level density in URR not in agreement with PSYCHE's expectations
   FILE 2 / SECTION 151 / ENERGY = 3.00000E+03. STRENGTH FUNCTION IS 1.20000E-04 / DENSITY 5.48850E+01 SHOULD BE 4.85596E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
         ENERGY =  3.00000E+03. STRENGTH FUNCTION IS  1.20000E-04
                        DENSITY  5.48850E+01 SHOULD BE  4.85596E+01
```

9. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 3.50000E+03. STRENGTH FUNCTION IS 1.20000E-04 / DENSITY 5.48493E+01 SHOULD BE 4.85280E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
         ENERGY =  3.50000E+03. STRENGTH FUNCTION IS  1.20000E-04
                        DENSITY  5.48493E+01 SHOULD BE  4.85280E+01
```

10. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 4.00000E+03. STRENGTH FUNCTION IS 1.20000E-04 / DENSITY 5.48135E+01 SHOULD BE 4.84963E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
         ENERGY =  4.00000E+03. STRENGTH FUNCTION IS  1.20000E-04
                        DENSITY  5.48135E+01 SHOULD BE  4.84963E+01
```

11. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 5.00000E+03. STRENGTH FUNCTION IS 1.20000E-04 / DENSITY 5.47421E+01 SHOULD BE 4.84331E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
         ENERGY =  5.00000E+03. STRENGTH FUNCTION IS  1.20000E-04
                        DENSITY  5.47421E+01 SHOULD BE  4.84331E+01
```

12. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 6.00000E+03. STRENGTH FUNCTION IS 1.20000E-04 / DENSITY 5.46707E+01 SHOULD BE 4.83700E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
         ENERGY =  6.00000E+03. STRENGTH FUNCTION IS  1.20000E-04
                        DENSITY  5.46707E+01 SHOULD BE  4.83700E+01
```

13. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 7.00000E+03. STRENGTH FUNCTION IS 1.20000E-04 / DENSITY 5.45995E+01 SHOULD BE 4.83070E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
         ENERGY =  7.00000E+03. STRENGTH FUNCTION IS  1.20000E-04
                        DENSITY  5.45995E+01 SHOULD BE  4.83070E+01
```

14. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 8.00000E+03. STRENGTH FUNCTION IS 1.20000E-04 / DENSITY 5.45284E+01 SHOULD BE 4.82440E+01 (0): URR dens. (a)

19

```
FILE  2
   SECTION 151
          ENERGY =  8.00000E+03. STRENGTH FUNCTION IS  1.20000E-04
                           DENSITY  5.45284E+01 SHOULD BE  4.82440E+01
```

15. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 9.00000E+03. STRENGTH FUNCTION IS 1.20000E-04 / DENSITY 5.44573E+01 SHOULD BE 4.81811E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
          ENERGY =  9.00000E+03. STRENGTH FUNCTION IS  1.20000E-04
                           DENSITY  5.44573E+01 SHOULD BE  4.81811E+01
```

16. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.20000E-04 / DENSITY 5.43863E+01 SHOULD BE 4.81183E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
          ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.20000E-04
                           DENSITY  5.43863E+01 SHOULD BE  4.81183E+01
```

17. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.10000E+04. STRENGTH FUNCTION IS 1.20000E-04 / DENSITY 5.43155E+01 SHOULD BE 4.80557E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
          ENERGY =  1.10000E+04. STRENGTH FUNCTION IS  1.20000E-04
                           DENSITY  5.43155E+01 SHOULD BE  4.80557E+01
```

18. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.20000E+04. STRENGTH FUNCTION IS 1.20000E-04 / DENSITY 5.42448E+01 SHOULD BE 4.79931E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
          ENERGY =  1.20000E+04. STRENGTH FUNCTION IS  1.20000E-04
                           DENSITY  5.42448E+01 SHOULD BE  4.79931E+01
```

19. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.30000E+04. STRENGTH FUNCTION IS 1.20000E-04 / DENSITY 5.41740E+01 SHOULD BE 4.79305E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
          ENERGY =  1.30000E+04. STRENGTH FUNCTION IS  1.20000E-04
                           DENSITY  5.41740E+01 SHOULD BE  4.79305E+01
```

20. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.40000E+04. STRENGTH FUNCTION IS 1.20000E-04 / DENSITY 5.41035E+01 SHOULD BE 4.78682E+01 (0): URR dens. (a)

```
FILE   2
   SECTION 151
             ENERGY =  1.40000E+04. STRENGTH FUNCTION IS  1.20000E-04
                         DENSITY  5.41035E+01 SHOULD BE  4.78682E+01
```

21. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.50000E+04. STRENGTH FUNCTION IS 1.20000E-04 / DENSITY 5.40330E+01 SHOULD BE 4.78058E+01 (0): URR dens. (a)

```
FILE   2
   SECTION 151
             ENERGY =  1.50000E+04. STRENGTH FUNCTION IS  1.20000E-04
                         DENSITY  5.40330E+01 SHOULD BE  4.78058E+01
```

22. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.60000E+04. STRENGTH FUNCTION IS 1.20000E-04 / DENSITY 5.39627E+01 SHOULD BE 4.77436E+01 (0): URR dens. (a)

```
FILE   2
   SECTION 151
             ENERGY =  1.60000E+04. STRENGTH FUNCTION IS  1.20000E-04
                         DENSITY  5.39627E+01 SHOULD BE  4.77436E+01
```

23. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / TOTAL OF 37 POINTS IN ERROR FOR THIS J-STATE (0): URR dens. (b)

```
FILE   2
   SECTION 151
             TOTAL OF    37 POINTS IN ERROR FOR THIS J-STATE
             TOTAL OF    37 POINTS IN ERROR FOR THIS J-STATE
```

24. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 8.80000E+02. STRENGTH FUNCTION IS 1.50000E-04 / ENERGY = 8.80000E+02. STRENGTH FUNCTION IS 1.50000E-04 / DENSITY 4.49982E+01 SHOULD BE 3.66914E+01 (0): URR dens. (a)

```
FILE   2
   SECTION 151
         ENERGY =  8.80000E+02. STRENGTH FUNCTION IS  1.50000E-04
                   ENERGY =  8.80000E+02. STRENGTH FUNCTION IS  1.50000E-04
                         DENSITY  4.49982E+01 SHOULD BE  3.66914E+01
```

25. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.00000E+03. STRENGTH FUNCTION IS 1.50000E-04 / DENSITY 4.49912E+01 SHOULD BE 3.66856E+01 (0): URR dens. (a)

```
FILE   2
   SECTION 151
             ENERGY =  1.00000E+03. STRENGTH FUNCTION IS  1.50000E-04
                         DENSITY  4.49912E+01 SHOULD BE  3.66856E+01
```

26. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.50000E+03. STRENGTH FUNCTION IS 1.50000E-04 / DENSITY 4.49618E+01 SHOULD BE 3.66617E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
            ENERGY =  1.50000E+03. STRENGTH FUNCTION IS  1.50000E-04
                         DENSITY  4.49618E+01 SHOULD BE  3.66617E+01
```

27. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 2.00000E+03. STRENGTH FUNCTION IS 1.50000E-04 / DENSITY 4.49325E+01 SHOULD BE 3.66378E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
            ENERGY =  2.00000E+03. STRENGTH FUNCTION IS  1.50000E-04
                         DENSITY  4.49325E+01 SHOULD BE  3.66378E+01
```

28. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 2.50000E+03. STRENGTH FUNCTION IS 1.50000E-04 / DENSITY 4.49032E+01 SHOULD BE 3.66139E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
            ENERGY =  2.50000E+03. STRENGTH FUNCTION IS  1.50000E-04
                         DENSITY  4.49032E+01 SHOULD BE  3.66139E+01
```

29. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 3.00000E+03. STRENGTH FUNCTION IS 1.50000E-04 / DENSITY 4.48739E+01 SHOULD BE 3.65900E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
            ENERGY =  3.00000E+03. STRENGTH FUNCTION IS  1.50000E-04
                         DENSITY  4.48739E+01 SHOULD BE  3.65900E+01
```

30. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 3.50000E+03. STRENGTH FUNCTION IS 1.50000E-04 / DENSITY 4.48447E+01 SHOULD BE 3.65662E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
            ENERGY =  3.50000E+03. STRENGTH FUNCTION IS  1.50000E-04
                         DENSITY  4.48447E+01 SHOULD BE  3.65662E+01
```

31. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 4.00000E+03. STRENGTH FUNCTION IS 1.50000E-04 / DENSITY 4.48155E+01 SHOULD BE 3.65423E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
            ENERGY =  4.00000E+03. STRENGTH FUNCTION IS  1.50000E-04
                         DENSITY  4.48155E+01 SHOULD BE  3.65423E+01
```

32. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 5.00000E+03. STRENGTH FUNCTION IS 1.50000E-04 / DENSITY 4.47571E+01 SHOULD BE 3.64947E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
         ENERGY =  5.00000E+03. STRENGTH FUNCTION IS  1.50000E-04
                       DENSITY  4.47571E+01 SHOULD BE  3.64947E+01
```

33. Level density in URR not in agreement with PSYCHE's expectations
    FILE 2 / SECTION 151 / ENERGY = 6.00000E+03. STRENGTH FUNCTION IS 1.50000E-04 / DENSITY 4.46987E+01 SHOULD BE 3.64472E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
         ENERGY =  6.00000E+03. STRENGTH FUNCTION IS  1.50000E-04
                       DENSITY  4.46987E+01 SHOULD BE  3.64472E+01
```

34. Level density in URR not in agreement with PSYCHE's expectations
    FILE 2 / SECTION 151 / ENERGY = 7.00000E+03. STRENGTH FUNCTION IS 1.50000E-04 / DENSITY 4.46405E+01 SHOULD BE 3.63997E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
         ENERGY =  7.00000E+03. STRENGTH FUNCTION IS  1.50000E-04
                       DENSITY  4.46405E+01 SHOULD BE  3.63997E+01
```

35. Level density in URR not in agreement with PSYCHE's expectations
    FILE 2 / SECTION 151 / ENERGY = 8.00000E+03. STRENGTH FUNCTION IS 1.50000E-04 / DENSITY 4.45823E+01 SHOULD BE 3.63522E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
         ENERGY =  8.00000E+03. STRENGTH FUNCTION IS  1.50000E-04
                       DENSITY  4.45823E+01 SHOULD BE  3.63522E+01
```

36. Level density in URR not in agreement with PSYCHE's expectations
    FILE 2 / SECTION 151 / ENERGY = 9.00000E+03. STRENGTH FUNCTION IS 1.50000E-04 / DENSITY 4.45242E+01 SHOULD BE 3.63049E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
         ENERGY =  9.00000E+03. STRENGTH FUNCTION IS  1.50000E-04
                       DENSITY  4.45242E+01 SHOULD BE  3.63049E+01
```

37. Level density in URR not in agreement with PSYCHE's expectations
    FILE 2 / SECTION 151 / ENERGY = 1.00000E+04. STRENGTH FUNCTION IS 1.50000E-04 / DENSITY 4.44662E+01 SHOULD BE 3.62575E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
         ENERGY =  1.00000E+04. STRENGTH FUNCTION IS  1.50000E-04
                       DENSITY  4.44662E+01 SHOULD BE  3.62575E+01
```

38. Level density in URR not in agreement with PSYCHE's expectations
    FILE 2 / SECTION 151 / ENERGY = 1.10000E+04. STRENGTH FUNCTION IS 1.50000E-04 / DENSITY 4.44083E+01 SHOULD BE 3.62104E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
          ENERGY =  1.10000E+04. STRENGTH FUNCTION IS  1.50000E-04
                        DENSITY  4.44083E+01 SHOULD BE  3.62104E+01
```

39. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.20000E+04. STRENGTH FUNCTION IS 1.50000E-04 / DENSITY 4.43504E+01 SHOULD BE 3.61632E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
          ENERGY =  1.20000E+04. STRENGTH FUNCTION IS  1.50000E-04
                        DENSITY  4.43504E+01 SHOULD BE  3.61632E+01
```

40. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.30000E+04. STRENGTH FUNCTION IS 1.50000E-04 / DENSITY 4.42926E+01 SHOULD BE 3.61160E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
          ENERGY =  1.30000E+04. STRENGTH FUNCTION IS  1.50000E-04
                        DENSITY  4.42926E+01 SHOULD BE  3.61160E+01
```

41. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.40000E+04. STRENGTH FUNCTION IS 1.50000E-04 / DENSITY 4.42350E+01 SHOULD BE 3.60690E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
          ENERGY =  1.40000E+04. STRENGTH FUNCTION IS  1.50000E-04
                        DENSITY  4.42350E+01 SHOULD BE  3.60690E+01
```

42. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.50000E+04. STRENGTH FUNCTION IS 1.50000E-04 / DENSITY 4.41773E+01 SHOULD BE 3.60220E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
          ENERGY =  1.50000E+04. STRENGTH FUNCTION IS  1.50000E-04
                        DENSITY  4.41773E+01 SHOULD BE  3.60220E+01
```

43. Level density in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.60000E+04. STRENGTH FUNCTION IS 1.50000E-04 / DENSITY 4.41198E+01 SHOULD BE 3.59751E+01 (0): URR dens. (a)

```
FILE  2
   SECTION 151
          ENERGY =  1.60000E+04. STRENGTH FUNCTION IS  1.50000E-04
                        DENSITY  4.41198E+01 SHOULD BE  3.59751E+01
```

44. Non-threshold reaction with Q value differing from PSYCHE's expectations
FILE 3 / SECTION 103 / THE CALCULATED Q 4.18598E+05 DISSAGREES WITH THE GIVEN Q 0.00000E+00 (0): Iffy Q

```
FILE  3
   SECTION 103
          THE CALCULATED Q  4.18598E+05 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

45. Non-threshold reaction with Q value differing from PSYCHE's expectations
FILE 3 / SECTION 107 / THE CALCULATED Q 6.72240E+06 DISSAGREES WITH THE GIVEN Q 0.00000E+00 (0): Iffy Q

```
FILE  3
   SECTION 107
            THE CALCULATED Q  6.72240E+06 DISSAGREES WITH THE GIVEN Q  0.00000E+00
```

- `linear` Errors:

    1. Negative cross section found
       0: Neg. Sig(E)

    ```
    Linearize ENDF/B Cross Sections (LINEAR 2015-1)
    ------------------------------------------------------------------------------
    Retrieval Criteria-----------        MAT
    Monitor Mode-----------------        Off
    Minimum Cross Section-------- 1.0000E-10 (Default Option)
    ... [82 more lines]
    ```

- `groupie` Errors:

    1. Very small elastic cross section found
       0: Small elastic

    ```
    Multi-Group and Multi-Band Parameters from ENDF/B Data (GROUPIE 2015-2)
    ------------------------------------------------------------------------------
    ENDF/B Input and Output Data Filenames
    ENDFB.IN
    ENDFB.OUT
    ... [97 more lines]
    ```

- `fudge-4.0` Warnings:

    1. Missing a channel with a particular angular momenta combination
       resonances / resolved / MultiLevel_BreitWigner (Error # 0): missingResonanceChannel

    ```
    WARNING: Missing a channel with angular momenta combination L = 0, J = 1.5 and S = 1.5 for "capture"
    ```

    2. Potential scattering hasn't converted, you need more L's!
       resonances / resolved (Error # 1): potentialScatteringNotConverged

    ```
    WARNING: Potential scattering hasn't converged by L=0 at E=880.0 eV, xs[0]/xs[0]=100.0% > 0.1%
    ```

    3. Cross section does not match sum of linked reaction cross sections
       crossSectionSum label 0: total (Error # 0): CS Sum.

    ```
    WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 3.27%
    ```

- `fudge-4.0` Errors:

    1. Calculated and tabulated Q values disagree.
       reaction label 8: n[multiplicity:'2'] + Ce135 + gamma (Error # 0): Q mismatch

    ```
    WARNING: Calculated and tabulated Q-values disagree: -9395653.644195557 eV vs -9.936e6 eV!
    ```

25

2. Calculated and tabulated Q values disagree.
   reaction label 9: n[multiplicity:'3'] + Ce134 + gamma (Error # 0): Q mismatch

   ```
   WARNING: Calculated and tabulated Q-values disagree: -17851741.92393494 eV vs -1.7896e7 eV!
   ```

3. Calculated and tabulated Q values disagree.
   reaction label 10: n + H1 + La135 + gamma (Error # 0): Q mismatch

   ```
   WARNING: Calculated and tabulated Q-values disagree: -6733726.617401123 eV vs -7.128e6 eV!
   ```

4. If an outgoing energy distribution ends with more than one energy with probability=0, proper unitbase treatment is unclear. Distribution should end with exactly one P=0 point.
   reaction label 10: n + H1 + La135 + gamma / Product: n / Distribution: / energyAngular - XYs3d: (Error # 0): extraOutgoingEnergy

   ```
   WARNING: Extra zero-probability outgoing energies found at incident energy 9.e6 eV
   WARNING: Extra zero-probability outgoing energies found at incident energy 1.e7 eV
   WARNING: Extra zero-probability outgoing energies found at incident energy 1.1e7 eV
   WARNING: Extra zero-probability outgoing energies found at incident energy 1.2e7 eV
            ... plus 8 more instances of this message
   ```

5. Calculated and tabulated Q values disagree.
   reaction label 11: H1 + La136 (Error # 0): Q mismatch

   ```
   WARNING: Calculated and tabulated Q-values disagree: 782796.2979278564 eV vs 3.09e5 eV!
   ```

6. Calculated and tabulated Q values disagree.
   reaction label 12: H1 + La136_e1 (Error # 0): Q mismatch

   ```
   WARNING: Calculated and tabulated Q-values disagree: 760996.2979278564 eV vs 2.872e5 eV!
   ```

7. Calculated and tabulated Q values disagree.
   reaction label 13: H1 + La136_e2 (Error # 0): Q mismatch

   ```
   WARNING: Calculated and tabulated Q-values disagree: 738496.2979278564 eV vs 2.647e5 eV!
   ```

8. Calculated and tabulated Q values disagree.
   reaction label 14: H1 + La136_e3 (Error # 0): Q mismatch

   ```
   WARNING: Calculated and tabulated Q-values disagree: 642796.2979278564 eV vs 1.69e5 eV!
   ```

9. Calculated and tabulated Q values disagree.
   reaction label 15: H1 + La136_e4 (Error # 0): Q mismatch

   ```
   WARNING: Calculated and tabulated Q-values disagree: 624496.2979278564 eV vs 1.507e5 eV!
   ```

10. Calculated and tabulated Q values disagree.
    reaction label 16: H1 + La136_e5 (Error # 0): Q mismatch

    ```
    WARNING: Calculated and tabulated Q-values disagree: 610796.2979278564 eV vs 1.37e5 eV!
    ```

11. Calculated and tabulated Q values disagree.
    reaction label 17: H1 + La136_e6 (Error # 0): Q mismatch

    ```
    WARNING: Calculated and tabulated Q-values disagree: 609296.2979278564 eV vs 1.355e5 eV!
    ```

12. Calculated and tabulated Q values disagree.
    reaction label 18: H1 + La136_e7 (Error # 0): Q mismatch

    `WARNING: Calculated and tabulated Q-values disagree: 570796.2979278564 eV vs 9.7e4 eV!`

13. Calculated and tabulated Q values disagree.
    reaction label 19: H1 + La136_e8 (Error # 0): Q mismatch

    `WARNING: Calculated and tabulated Q-values disagree: 552696.2979278564 eV vs 7.89e4 eV!`

14. Calculated and tabulated Q values disagree.
    reaction label 20: H1 + (La136_c ->La136 + gamma) (Error # 0): Q mismatch

    `WARNING: Calculated and tabulated Q-values disagree: 552696.2979278564 eV vs 7.89e4 eV!`

15. Calculated and tabulated Q values disagree.
    reaction label 21: He4 + Ba133 (Error # 0): Q mismatch

    `WARNING: Calculated and tabulated Q-values disagree: 7312021.805618286 eV vs 6.709e6 eV!`

16. Calculated and tabulated Q values disagree.
    reaction label 22: He4 + Ba133_e1 (Error # 0): Q mismatch

    `WARNING: Calculated and tabulated Q-values disagree: 7299701.805618286 eV vs 6696680. eV!`

17. Calculated and tabulated Q values disagree.
    reaction label 23: He4 + Ba133_e2 (Error # 0): Q mismatch

    `WARNING: Calculated and tabulated Q-values disagree: 7023771.805618286 eV vs 6420750. eV!`

18. Calculated and tabulated Q values disagree.
    reaction label 24: He4 + Ba133_e3 (Error # 0): Q mismatch

    `WARNING: Calculated and tabulated Q-values disagree: 7020851.805618286 eV vs 6417830. eV!`

19. Calculated and tabulated Q values disagree.
    reaction label 25: He4 + Ba133_e4 (Error # 0): Q mismatch

    `WARNING: Calculated and tabulated Q-values disagree: 7009651.805618286 eV vs 6406630. eV!`

20. Calculated and tabulated Q values disagree.
    reaction label 26: He4 + Ba133_e5 (Error # 0): Q mismatch

    `WARNING: Calculated and tabulated Q-values disagree: 6772231.805618286 eV vs 6169210. eV!`

21. Calculated and tabulated Q values disagree.
    reaction label 27: He4 + Ba133_e6 (Error # 0): Q mismatch

    `WARNING: Calculated and tabulated Q-values disagree: 6734471.805618286 eV vs 6131450. eV!`

22. Calculated and tabulated Q values disagree.
    reaction label 28: He4 + Ba133_e7 (Error # 0): Q mismatch

    `WARNING: Calculated and tabulated Q-values disagree: 6681461.805618286 eV vs 6078440. eV!`

23. Calculated and tabulated Q values disagree.
    reaction label 29: He4 + Ba133_e8 (Error # 0): Q mismatch

    ```
    WARNING: Calculated and tabulated Q-values disagree: 6635541.805618286 eV vs 6032520. eV!
    ```

24. Calculated and tabulated Q values disagree.
    reaction label 30: He4 + Ba133_e9 (Error # 0): Q mismatch

    ```
    WARNING: Calculated and tabulated Q-values disagree: 6518021.805618286 eV vs 5.915e6 eV!
    ```

25. Calculated and tabulated Q values disagree.
    reaction label 31: He4 + Ba133_e10 (Error # 0): Q mismatch

    ```
    WARNING: Calculated and tabulated Q-values disagree: 6453521.805618286 eV vs 5.8505e6 eV!
    ```

26. Calculated and tabulated Q values disagree.
    reaction label 32: He4 + Ba133_e11 (Error # 0): Q mismatch

    ```
    WARNING: Calculated and tabulated Q-values disagree: 6449261.805618286 eV vs 5846240. eV!
    ```

27. Calculated and tabulated Q values disagree.
    reaction label 33: He4 + (Ba133_c ->Ba133 + gamma) (Error # 0): Q mismatch

    ```
    WARNING: Calculated and tabulated Q-values disagree: 6449261.805618286 eV vs 5846240. eV!
    ```

28. Calculated and tabulated Q values disagree.
    reaction label 34: Ce137 + gamma (Error # 0): Q mismatch

    ```
    WARNING: Calculated and tabulated Q-values disagree: 7796684.860366821 eV vs 7.481e6 eV!
    ```

29. Calculated and tabulated Q values disagree.
    reaction label 35: n + He4 + Ba132 + gamma (Error # 0): Q mismatch

    ```
    WARNING: Calculated and tabulated Q-values disagree: -204501.1096801758 eV vs -4.8e5 eV!
    ```

30. If an outgoing energy distribution ends with more than one energy with probability=0, proper unitbase treatment is unclear. Distribution should end with exactly one P=0 point.
    reaction label 35: n + He4 + Ba132 + gamma / Product: n / Distribution: / energyAngular - XYs3d: (Error # 0): extraOutgoingEnergy

    ```
    WARNING: Extra zero-probability outgoing energies found at incident energy 7.e6 eV
    WARNING: Extra zero-probability outgoing energies found at incident energy 8.e6 eV
    WARNING: Extra zero-probability outgoing energies found at incident energy 9.e6 eV
    WARNING: Extra zero-probability outgoing energies found at incident energy 1.e7 eV
            ... plus 10 more instances of this message
    ```

31. Calculated and tabulated Q values disagree.
    reaction label 36: n[multiplicity:'2'] + He4 + Ba131 + gamma (Error # 0): Q mismatch

    ```
    WARNING: Calculated and tabulated Q-values disagree: -9600154.75390625 eV vs -1.0298e7 eV!
    ```

32. If an outgoing energy distribution ends with more than one energy with probability=0, proper unitbase treatment is unclear. Distribution should end with exactly one P=0 point.
    reaction label 36: n[multiplicity:'2'] + He4 + Ba131 + gamma / Product: n / Distribution: / energyAngular - XYs3d: (Error # 0): extraOutgoingEnergy

28

```
WARNING: Extra zero-probability outgoing energies found at incident energy 1.7e7 eV
WARNING: Extra zero-probability outgoing energies found at incident energy 1.8e7 eV
WARNING: Extra zero-probability outgoing energies found at incident energy 1.9e7 eV
WARNING: Extra zero-probability outgoing energies found at incident energy 2.e7 eV
```

33. Calculated and tabulated Q values disagree.
    reaction label 37: n[multiplicity:'2'] + H1 + La134 + gamma (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -16129380.26159668 eV vs -1.6614e7 eV!
```

34. If an outgoing energy distribution ends with more than one energy with probability=0, proper unitbase treatment is unclear. Distribution should end with exactly one P=0 point.
    reaction label 37: n[multiplicity:'2'] + H1 + La134 + gamma / Product: n / Distribution: / energyAngular - XYs3d: (Error # 0): extraOutgoingEnergy

```
WARNING: Extra zero-probability outgoing energies found at incident energy 1.9e7 eV
WARNING: Extra zero-probability outgoing energies found at incident energy 2.e7 eV
```

35. Cross section domain does not match domain of linked reaction cross section sum
    crossSectionSum label 1: (z,n) (Error # 0): summedCrossSectionDomainMismatch

```
WARNING: Cross section domain does not match domain of linked reaction cross section sum
```

- `njoy2012` Warnings:

    1. Recoil is not given, so one-particle recoil approximation used.
       heatr...prompt kerma (0): HEATR/hinit (4)

```
 ---message from hinit---mf6, mt102 does not give recoil za= 58137
                         photon momentum recoil used.
```

- `njoy2012` Errors:

    1. The elastic cross section is negative
       reconr...reconstruct pointwise cross sections in pendf format (0): Sig_el(E)<0

```
 ---message from emerge---nonpositive elastic cross sections found.
```